Abstract

Title: Screening of musculoskeletal system and level of physical activity in children of younger school age

Objectives: The aim of the study is to asseess physical activity of school age in primary school in Dolní Břežany and try to find the most common risk factors for motor development of children in school age. Another aim of the study is to find statistical context between flat foot and age, gender, hypermobility, shortened hamstring muscles, lumbar hyperlordosis, level of core muscles and overweight and between winged scapula and age, gender, hypermobility, shortened m. trapezius and mm. pectorales and level of core muscles.

Methods: The research was carried out by using non-standardized questionnaire to assess physical activity. Level of motor development was evaluated by group of physiotherapists. The research population was chosen purposefully by contractual research which consisted of 298 children who study on primary school in Dolní Břežany. For statistical analysis of all measured was used Microsoft Excel software. These data were evaluated by Chi – squared test and logistic regression.

Results: It was found that the largest number of children does sports 2-4 hours a week. The most common risk factor of motor development of children is winged scapula and shortened hamstring muscles. Overweight children have ten more times bigger chance to have flat foot and children with hypermobility have bigger chance to have winged scapula.

Keywords: hypermobility, winged scapula, flat foot, physical activity, musculoskeletal system, school age